



November 3, 2011

File Reference: 01-3-0009

ATTN TODD WILLER
MILK SOURCE HOLDINGS LLC
N3569 VANDEN BOSCH RD
KAUKAUNA WI 54130

**SUBJECT: A Conditional High Capacity Well Approval for Two Potable Wells
to be Located in the Town of Richfield, Adams County**

The Department of Natural Resources (department), Division of Water, Bureau of Drinking Water and Groundwater, received an application for two 500 gallon per minute (gpm), potable high capacity type well(s), on May 4, 2011. The application was submitted by you on behalf of your Limited Liability Corporation. You did not identify in the application a well driller to construct these wells. The application requested department approval for the construction and operation of the proposed high capacity wells on an existing high capacity property. Note that for department identification purposes a new high capacity file number has been created for this property. The original file number for this property was 01-1-0111 and the property consisted of only one 1,000 gallon per minute (gpm) irrigation well owned by Maranatha Farms, LLC. The property will now be used for dairy farming and the new file number, 01-3-0009, identifies this change. The existing irrigation well will be filled and sealed by Milk Source Holdings LLC.

Your proposed wells are approved, subject to all provisions of this approval letter, which includes the Conditions of Approval. This approval does not cover all situations you may encounter during the construction of the wells and the installation of the waterline up to and including the first storage vessel. Work closely with your well driller and pump installer and refer, as may be needed, to ch. NR 812, Wisconsin Administrative Code (Code) for a Code compliant installation. Keep this approval with your permanent well records for this facility.

In this approval the words proposed well, proposed wells, well, well(s) and new well(s) are used. It is to be understood that these words refer to the two wells in this approval called Well #1 the South Well and Well #2 the North Well that are proposed to be constructed.

The department is authorized by chapters 280 and 281 Stats., to have general supervision and control over the waters of the state and to establish and enforce standards and rules for obtaining drinking water and to establish safeguards necessary to protect the public health from polluted water supplies. Chapter NR 812, Wis. Adm. Code (Code) is adopted pursuant to this authority.

According to s. 281.34 (2) Wis. Stats., and Chapter NR 812, Wisconsin Administrative Code, a high capacity well must be approved prior to construction and operation. The definition of a high capacity well is any well on a high capacity property. A high capacity property is one property that has, or will have, one or more wells with a combined capacity of 70 gpm or more. According to Section NR 812.07(68), of the Code, "One property" means all contiguous land

controlled by one owner, lessee, or any other person having a possessory interest. Lands under single ownership bisected by highways or railroad right-of-ways are considered contiguous. Therefore, all existing and proposed wells on the property are high capacity wells.

This review and approval is specific to regulatory compliance with ch. NR 812, entitled Well Construction and Pump Installation of the Wisconsin Administrative Code (Code), and ch. NR 820 of the Wisconsin Administrative Code, entitled Groundwater Quantity Protection. There are conditions at the end of this approval for water well Registration, under the NR 856 Code and for water use Fees under the NR 850 Code. The department has not performed any review for structural integrity, for regulatory requirements of other departmental programs or for regulatory requirements of other State Agencies.

High capacity well approvals are issued to the property owner and are not valid after the property is sold. In the event you sell your property you are required to notify the new owner that he/she is required to apply to the department to have a new approval issued in their name. If you sell part of your property to an adjacent property owner, who is currently a high capacity property owner, you are required to notify this high capacity property owner that he/she is required to notify the department to have their approval modified to include the additional existing well(s) on their high capacity property. If you add adjacent property to your current holdings and this adjacent property has an existing well or existing wells on it (regardless of the capacity of the well(s)) you must apply for a new approval to include these wells. Lastly, if you sell some of your property that has a well or wells on it to an adjacent property owner you shall notify the adjacent property owner that if the combined pumpage on his/her existing and acquired property is equal to or greater than 70 gpm the adjacent property owner becomes a high capacity well property and he/she shall apply to the department as a new high capacity well property.

A file has been created at the Department's Central Office in Madison for your high capacity property. The file number is 01-3-0009. As part of the department's review process permanent high capacity well numbers 71786 and 71787 have been issued for the proposed wells. These numbers are in Table 1 at the end of this approval. The Table also contains information on the existing well which is proposed to be filled and sealed. Future correspondence with the department will require that you know your wells and their high capacity well numbers.

Based on information in the application, the department is of the opinion that this well will be used as a public water system, as that term is defined in Section NR 812.07(80) of the Code. As a Non-Transient Non-Community Water System you are required to follow the requirements of the Safe Drinking Water Act. More specific information on Non-Transient Non-Community Water Systems is provided in the following pages of this approval.

OWNERSHIP, PROPERTY AND WATER SUPPLY SUMMARY

As of the date of this approval the ownership, property and water supply information is as stated below. If any information is incorrect immediately contact Paul L. Kozol, P.E; his address information is in his signature block at the end of this approval.

Property Owner: Milk Source Holdings LLC
N3569 Vanden Bosch Rd.
Kaukauna, WI 54130

Officials: Todd Willer
Telephone: 920-766-5335

Operator: Richfield Dairy, LLC
N3569 Vanden Bosch Rd.
Kaukauna, WI 54130

Certified Operator: Unknown at this time, Proposed Non-Transient Non-Community Public Water System

Property Location: A copy of a Plat Book map outlining the property was submitted with the application. This map will remain in your high capacity file. Update any changes to property boundaries and wells on your yearly inventory and pumpage reports which are due in March of each year for the previous year's pumpage amounts. The proposed wells will be constructed in the SW Quarter of the NE Quarter of Section 25, Township N18, Range 7E, Town of Richfield, Adams, County.

Existing Water Supply, Proposed Modifications to the Water Supply, Proposed Pumping Capacities and Proposed Daily Water Usage Rates: According to the applicant, there is one existing well on the property. This existing well has high capacity well number 00146 and this well is proposed to be filled and sealed. The existing well is under the footprint for the proposed free stall barn. Table 1 is a summary of information on the existing and proposed wells. With the proposed wells in operation this high capacity property will have a maximum potential pumpage of 1,000 gpm.

LOCATION CRITERIA

The department has not inspected the proposed well site and the department may not have fully evaluated the distance from the proposed well or wells to all potential contaminant sources for compliance with Chapter NR 812, Wisconsin Administrative Code. It is the responsibility of the owner to provide a complete description of potential contaminant sources to the driller and it is the responsibility of the driller to ascertain that the proposed well or wells is located and constructed in compliance with NR 812 and this approval. The well or wells shall be installed and maintained in accordance with the applicable requirements of Section NR 812.08, and NR 820 of the Wisconsin Administrative Code.

Proximity to Landfills: There are no reported landfills within 1,200 feet of the proposed well. Therefore, no additional review of landfill locations is required by department regulations.

Contamination Sites: There were no reported groundwater contamination sites regulated by the department's Remediation and Redevelopment Program within a quarter mile of the site, based on the database maintained by that program. No additional review is required.

Groundwater Management Areas: The department has established groundwater management areas in accordance NR 820 Wis. Adm. Code. The well site will not be located in an area within which the level of the groundwater potentiometric surface in any of its underlying aquifers has been drawn down by more than 150 feet when compared to historic levels. Thus, this well is not in a groundwater management area.

Proximity to Nearby Springs: The department believes that the proposed wells will not have a significant adverse impact on any springs, as a spring is defined in s. 281.34(1)(f), Wisconsin Statutes. The nearest identifiable spring that meets the statutory definition of a spring is located at least 3.5 miles from the proposed well location. The proposed wells are not expected to have any significant adverse impact on this type of defined spring.

Groundwater Protection Areas: The proposed wells are located about 3.5 miles from Tagatz Creek, a Class I Trout Stream, and about 3.5 miles from Chaffee Creek, an Outstanding Water Resource. No significant adverse impacts to these water bodies, that form the core of the nearest groundwater protection areas, as defined in s. 281.34(1)(a), Wisconsin Statutes, are expected from the operation of the proposed wells.

Proximal Public Utility Well: The nearest well serving a public utility within the State of Wisconsin is a Coloma Waterworks Well which is located approximately 5 miles northeast of the proposed well. No impairment of the water supply to this public utility well is expected from the operation of the proposed wells.

Other Potential Contaminant Sources: Chapter NR 812.08 Wisconsin Administrative Code, Table A, lists minimum separation distance requirements between individual wells and sources of contamination. The well driller shall confirm the separation distance between the proposed well, and any other potential sources of contamination, and maintain the required minimum separation distances from these sources as stated in Table A of the NR 812 Wisconsin Administrative Code. The property owner shall assist the well driller with the confirmation of these potential sources of contamination. Once this well is constructed it becomes a fixed point. Any future planned potential sources of contamination shall maintain the required separation distance from the existing well(s) based on the well Code in effect at the time of placement of the potential source(s) of contamination. Also, NR 243 Wisconsin Administrative Code has separation distances between a well and reviewable facilities. A department contact for discussing the requirements of NR 243 Wisconsin Administrative Code is Gretchen Wheat. Her phone number is 608-264-6273.

VARIANCES

No Code variances were requested and no variances are granted. It is expected that the proposed well(s) will be constructed in strict compliance with the NR 812 Code.

PROPOSED WELL, PUMP AND DISCHARGE DETAILS

Proposed Well Construction: The two proposed wells are expected to be drilled to identical specifications. It is anticipated that the geologic materials will be unconsolidated deposits to a depth of about 145 feet below ground surface (bgs), followed by a soft sandstone to about 165 feet bgs. Solid, hard sandstone is expected at about 165 feet bgs. The well casing will extend 20 or more feet into the solid sandstone bedrock. An open borehole will extend to the well termination point of 350 feet bgs. The proposed well construction exceeds the minimum requirements of Table IV for high capacity wells drilled in bedrock. Additional specifics for the proposed well construction include:

- Rotary mud/air drilling methods to construct an upper enlarged drillhole of 17 inches in diameter through the unconsolidated materials and 20 or more feet into the solid, hard sandstone.

- A nominal 12 inch steel casing set in the upper enlarged drillhole following the requirements of NR 812.14 for rotary mud drilling methods.
- The steel casing shall meet the material requirements of Section NR 812.17 of the Code. The casing joints shall be welded.
- The annular space between the casing and the drillhole wall shall be filled with neat cement grout, which is the only annular space sealing material allowed for high capacity potable wells.
- The neat cement grout shall be placed using an approved pressure grouting method. The department recommends the Bradenhead or Grout Shoe method.
- At completion, the casing shall terminate a minimum of 12 inches above the finished ground grade elevation and a minimum of 24 inches above the 100 year flood elevation.

Proposed Pump Installation: Each proposed well is approved to be equipped with a submersible pump with a capacity of up to 500 gpm. Additional specifics for this installation include:

- The pumped water will discharge through a pitless adapter or pitless unit. The pitless adapter or pitless unit shall be pressure tested in accordance with NR 812.31 (2) (c). Refer to Condition # 14 below.
- A sampling faucet shall be installed on the discharge line from the well and prior to the pressure tank. (Each well discharge line shall have its own sampling faucet.)
- A meter that measures cumulative hours of pump operation or a meter that measures cumulative gallons that were pumped shall be installed on each well's discharge line and prior to any pressure/storage vessel. The rate of water usage will be calculated from the recorded hours of pump operation or read from a direct reading flow meter that measures the total gallons pumped. If a variable speed pump is used, a meter that measures the cumulative gallons that are pumped is the only acceptable method to determine water usage.
- As an owner's option the water levels in each well can be measured during well operation with an air line and pressure gage installation. If the read out will not be at the well head but at a remote location then the air line shall be in a separate conduit and not combined in any other conduit. See Condition #10 below.
- According to the applicant, the proposed wells will be interconnected after a separate pressure tank for each well. A drawing was provided with the application showing this proposed installation. You are approved to install the water system in accordance with the proposed drawing. No check valves are allowed between a pitless adapter or pitless unit and the first pressure tank.
- Any piping to any non-potable portions of the plumbing system shall either be protected from backflow by an air gap or by a backflow preventer in accordance with Department of Safety and Professional Services Codes, and if applicable, Section ATPC 60.08(2), Wisconsin Administrative Code. The

backflow preventer shall meet ASSE Standard Number 1013 or a standard that is deemed equivalent in accordance with Chapter Comm. 84, Wisconsin Administrative Code. If an RP valve is used, it must comply with Chapters Comm. 82 and 84, Wisconsin Administrative Codes. An RP valve includes requirements for plan review prior to installation and periodic testing by a certified cross connection control tester.

Refer to the Conditional Approval Section for additional requirements.

PUBLIC WATER SUPPLY CONSIDERATIONS

According to the applicant, water from the proposed wells will be used as a public water system. The definition of the anticipated type of public water system is as follows:

- **NON-TRANSIENT NON-COMMUNITY WATER SYSTEM.** NR 809.04(58) Non-transient non-community water system means a non-community water system that regularly serves at least 25 of the same persons over 6 months per year. Note: Examples of non-transient non-community water systems include those serving schools, day care centers and factories.

Your department contact for public water supply issues is Peggy Norris. Contact Peggy within 30 days after the start of operation of the wells to determine the requirements of the Safe Drinking Water Act. Requirements will include Operator Certification, Vulnerability Assessment and sampling requirements.

WELL FILLING AND SEALING (ABANDONMENT) REQUIREMENTS FOR EXISTING IRRIGATION WELL

A copy of the well construction report for the existing irrigation well is attached to this approval. The existing well appears to be located in the area where the free stall barn is proposed to be located. A gravel pack for the existing well starts at 93 feet bgs. At a minimum, this well shall be filled and sealed (abandoned) in accordance with the requirements of s. NR 812.26. The department recommends that you consider using the well filling and sealing process that was used for the New Chester Dairy, namely, the removal of the casing and over drilling of the well prior to the Code required process for filling and sealing of the well. For this existing well, the top of the gravel pack is at a deeper distance from the ground surface than the New Chester Dairy and as such the Code required filling and sealing (abandonment) requirement is an acceptable minimum requirement.

APPROVED WATER USAGE AND APPROVED PUMPING CAPACITIES

The approved water usage rates and approved pumping capacities in existing and proposed wells are listed in Table 1 at the end of this approval. In addition, there is a special water use condition as part of this approval. See Condition #6 below.

CONDITIONAL APPROVAL

Because the operation of the high capacity well system is not expected to cause impairment of groundwater availability to the nearest public utility well, the proposed construction and operation of the high capacity well system is approved subject to the conditions noted below. This approval is granted based upon information provided to the department by the well owner or authorized agent. The information provided to the department is assumed to be accurate and this approval is granted based upon that information. Department personnel have not

inspected the proposed well construction or pump installation at the time of approval. This approval does not guarantee that the existing or proposed water system will produce acceptable water quality or quantity.

The department reserves the authority to limit the pumpage in any amount that may be necessary to eliminate impairment of the water supply of any public utility well that may be affected. If the operation of the well or wells adversely affects the operation of any private wells on neighboring properties, this department approval will not negate the protection to which private well owners are entitled under Wisconsin case law relating to groundwater. Approval by the department does not relieve the property owner or well operator of any liability which may result from injury or damage suffered by any person upon operation of the well or wells. You should also be aware that the department has the authority to require either the alteration or the decommissioning, relocation, and reconstruction of any existing water supply wells if, during any future inspection of the wells, the department determines such work is required for compliance with the current requirements of Chapter NR 812, Wisconsin Administrative Code.

If construction has not commenced within two years from the date of this letter, this approval shall become void. After two years, therefore, a new application must be made for approval of the plans and specifications before any construction work is undertaken.

1. Table 1 lists the latitude and longitude of the proposed well locations. The proposed locations of the wells are approved. If the locations of the wells are moved more than the distance listed in Table 1 as the location tolerance (**660 feet**) from the proposed locations, prior department approval is necessary before construction. It is still the responsibility of the well owner and the well driller to confirm that the wells meet all setback distances required in Chapter NR 812, Wisconsin Administrative Code.

2. The well driller shall determine accurate latitude and longitude coordinates for the final, as constructed, proposed well location(s) with a Global Positioning System (GPS) unit and shall include those coordinates on the well construction record. The correct format is degrees and decimal minutes (Example: Latitude 43° 04.517' Longitude 89° 22.825'). Refer to the most recent CD from the department. Under the Images Folder click the Lat Long Conversion Spreadsheet and follow the directions to convert Latitudes and Longitudes to the correct format.

3. The well or wells shall be constructed as described in this approval, except that the depth of casing and total depth of well may vary from the specified depths due to unanticipated geological conditions. The depth of casing and depth of upper enlarged drillhole however may not be less than the depths specified for a potable high capacity well in Table IV of the Code. Your proposed well construction exceeds the minimum requirements.

4. The pump or pumps and discharge from the pump(s) shall be as described in this approval. Approval was not sought for a pressure tank with a capacity greater than 1,000 gallons and an approval for a tank with that capacity is not granted. Approval was not sought for a non-pressurized storage vessel and an approval for such a vessel is not granted. This approval is contingent upon compliance with the backflow prevention criteria specified above.

5. In accordance with NR 820.13 Wis. Adm. Code, all high capacity well owners must record the amount of water that they pump each month. This information

shall be reported to the department on an annual basis. A guidance brochure is attached that lists several options of measuring or estimating pumpage for different types of high capacity wells. (Table One (below 70 gpm, see Notes) or Table Two (≥ 70 gpm)).

6. Based on annual water use of about 52.5 million gallons per year (estimate provided by Milksource, Inc.), the Department has determined that operation of the wells will not result in significant adverse environmental impacts. However, operation of the wells at or near their maximum capacity for an extended period could result in adverse impacts to the private well located at 1721 1st Drive. Therefore, the maximum total gallons pumped from the two wells in any 30-day period may not exceed 21.6 million gallons, and the maximum total gallons pumped from the two wells in any 365-day period may not exceed 131.2 million gallons. In addition, the Department may require monitoring and may impose additional restrictions or conditions on the use of the wells if available information indicates that pumping of the wells is resulting in adverse impacts to private wells or surface water.

7. Chlorine residual shall be maintained in the drilling water during the entire drilling operation.

8. All sampling, reporting and other requirements for both the construction and operation of the well or wells shall be complied with. These requirements include the well driller preparing and submitting a construction report of the well or wells to the department within 30 days after completion of drilling of the well or wells.

9. For the new wells, the construction reporting also requires that the well driller collect drill cuttings at 5 foot intervals throughout the depth of the well and at each change in formation. The samples must be sent to the Wisconsin Geological and Natural History Survey for examination and preparation of an accurate geologic log of the well.

10. The department reserves the authority to require any schedule of reporting water levels within high capacity wells that it deems necessary. If a water level measuring device is not permanently installed in any well that the department requires to report water levels, the department's authority shall extend to require the well to be taken out of service until the reporting can be conducted. While no water level measuring device is required to be installed at this time, the owner, at his option, can install a water level measuring device.

11. Notification of the start of the drilling operation shall be given to the department's Paul Kozol at (608) 267-9787. You can leave a voice mail. Or, notification can be provided via e-mail at paul.kozol@wisconsin.gov. Provide notification not less than 3 business days and not more than 5 business days prior to the beginning of drilling. Provide the file number 01-3-0009 with the notification. If any schedule changes occur after Mr. Kozol is notified, Mr. Kozol shall be notified as soon as practical of those schedule modifications.

12. Notification of the proposed time of grouting shall be given to the department's Peggy Norris; her phone number at the time of this approval was 715-421-7833. You can leave a voice mail. Notification can also be given via e-mail at peggy.norris@wisconsin.gov. Provide notification not less than 48 hours prior to the beginning of the grouting operation. In conducting this grouting, the Halliburton double or single plug method may only be used if prior approval is obtained in writing from the department.

13. Within 30 days after the start of the operation of the proposed well(s), the owner is required to contact Peggy Norris to complete the outstanding Safe Drinking Water Act requirements. Peggy's phone number at the time of this approval was 715-421-7833. You can leave a voice mail. Notification can also be given via e-mail at peggy.norris@wisconsin.gov. Requirements will include Operator Certification, Vulnerability Assessment, and sampling requirements.

14. The pitless adapter or pitless unit must be pressure tested before the well is placed in service. Notification of the proposed time of pressure testing shall be given to the department's Peggy Norris; her phone number at the time this approval was issued was 715-421-7833. You can leave a voice mail. Notification can also be given via e-mail at peggy.norris@wisconsin.gov. Provide notification not less than 48 hours prior to the beginning of pressure testing.

15. Department personnel shall be allowed to perform unscheduled inspections for purposes of verifying compliance with the conditions of approval and compliance with Chapter NR 812, Wisconsin Administrative Code.

16. The existing irrigation well, (high capacity well number 00146) shall be permanently filled and sealed (abandoned) according to the requirements of Section NR 812.26 Wisconsin Administrative Code, prior to, or at the time that the new wells are being constructed. In addition to submitting the filling and sealing (abandonment) report for the well to the appropriate DNR office, an additional copy of the filling and sealing (abandonment) report with the high capacity file number of 01-3-0009 shall be submitted to Paul Kozol. Mr. Kozol's mailing address is below his signature block in this approval.

17. As required by s. NR 810.24, Wisconsin Administrative Code, this water system must complete a "Capacity Evaluation" prior to construction. Capacity in this sense refers to a water system's ability to comply with all the requirements listed in s. NR 810.24, Wisconsin Administrative Code. You will be contacted by Adam DeWeese, Capacity Development Coordinator, regarding this requirement. You may reach the Capacity Development Coordinator by calling (608) 264-9229 or via e-mail at adam.DeWeese@wisconsin.gov

18. This approval is contingent upon obtaining any and all WPDES permits that the department's wastewater program deems necessary for the facility. And, if a WPDES permit is necessary, approval to operate any of the high capacity wells on the property is contingent upon compliance with all conditions of approval of the plan approval issued by the department's wastewater program and upon all conditions established in the WPDES permit. In addition, the penalties and forfeitures specified in Section 281.98, Wisconsin Statutes shall apply.

19. Drill cuttings shall not be disposed in any ravines, wetlands or near any sensitive environments. Sensitive environments include threatened wildlife species habitat that may exist on the property.

20. In the event that a pumping test is to be performed for the purpose of estimating aquifer transmissivity and storage coefficient, the department's wastewater program must first be contacted to determine if a short duration WPDES permit is necessary for disposal of the pumped water.

21. In the event that a pumping test is performed and aquifer transmissivity and storage coefficient are estimated, two copies of the raw data and the analysis must be submitted to the department within 30 days after the pumping test is performed. The analysis must be submitted in paper format, the raw data may be submitted in either paper or electronic format. If electronic format is

used, use a CD and it must be readable by a Windows based computer system, preferably in Excel or Agtesolv data formats. Submit that data with the high capacity file number 01-3-0009 to Paul Kozol. Mr. Kozol's mailing address is below his signature block in this approval.

22. Constructed wells are expected to be used. No well may be constructed and remain as an unused backup well. The proposed wells are planned to be interconnected on a pressure or mechanical (timer) basis. Any well that is not used for three (3) or more years shall be filled and sealed (abandoned) according to the requirements of Section NR 812.26, Wisconsin Administrative Code unless a written approval is obtained from the department for the temporary abandonment of the well. A well/drillhole/borehole filling and sealing (abandonment) form must be completed and submitted to the department within 30 days of filling and sealing each well. The person performing the filling and sealing of the well must meet the requirements of s. 280.30(2), Stats.

23. The owner, well driller and pump installer are required to determine if the new waterline from the proposed well(s) will cross or come close to any sewer lines. If this situation does occur you are required to follow s. NR 812.32(4) (b) of the Code.

24. NR 812.32(4) (a) of the Code requires back pressure on the waterline from a pitless adapter to the first pressure tank. No check valves are allowed between the pitless adapter and the first pressure tank.

25. WATER WITHDRAWAL REGISTRATION. Your high capacity well application and this approval fulfill the statutory requirement to register your withdrawal with the Department. You do not need to take any additional steps to register. Registration is required for persons who have a water supply system with the capacity to withdraw an average of 100,000 gallons per day (70 gallons per minute). (Wisconsin Statutes s. 281.346, NR 856 Wisconsin Administrative Code) For more information go to <http://dnr.wi.gov/org/water/dwg/greatlakes/registration.htm> or call the Water Use Program at (608) 266-2299.

26. WATER USE FEES. You are required to pay an annual water use fee of \$125 for each registered property. This high capacity well approval may be rescinded if the fees are not paid. (Wisconsin Statutes s. 281.346(12), Wisconsin Statutes s. 281.34(7) and NR 850 Wisconsin Administrative Code) For more information go to <http://dnr.wi.gov/org/water/dwg/greatlakes/fees.htm> or call the Water Use Program at (608) 266-2299.

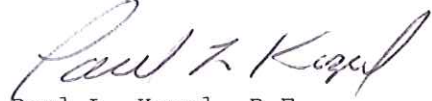
NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance

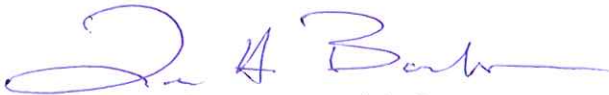
with section NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with section NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing does not extend the 30 day period for filing a petition for judicial review.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Paul L. Kozol, P.E.
Water Supply Engineer
Public Water Supply Section
Bureau of Drinking Water and Groundwater
(608) 267-9787 FAX (608) 267-7650

WDNR, Mail Code DG/5
P.O. Box 7921
Madison, WI 53707-7921



Lee Boushon, P.E. Chief
Public Water Supply Section
Bureau of Drinking Water and Groundwater
(608) 266-0857 FAX (608) 267-7650

Enclosures:

Table 1, Approved Well Inventory Summary
Pumpage Guidance (yellow sheet)
Well Abandonment Form

Cc with enclosures:

Owner - (2 additional copies, 1 for driller and 1 for pump installer)
Jennifer Keuning - Conestoga-Rovers & Associates

Cc without enclosures:

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Electronic cc with enclosures:

Roger Peters - WGNHS
Steve Ales - Central Office
Mike Blodgett - West District
Peggy Norris - West District
Adam DeWeese - Central Office
Gretchen Wheat - Central Office WT/3
Eric Ebersberger - Central Office
Judy Ohm - Central Office

TABLE 1
APPROVED WELL INVENTORY SUMMARY

<p>PREVIOUSLY APPROVED WELL DNR HIGH CAP WELL#: 00146 WELL STATUS: TO BE ABANDONED SITE WELL NUMBER: 001 WELL NAME: F WUWN: BB432 PWSID NUMBER: NONE LATITUDE: NONE LONGITUDE: NONE LOCATION TOLERANCE (FT): N/A LOCATION: CT 1/4 NE 1/4 S25 T18N R7E CIVIL TOWN: RICHFIELD COUNTY: ADAMS DATE COMPLETED: 04/10/1976 WELL DEPTH: 123 PUMP CAPACITY (GPM): 1000 USE: AGRICULTURAL IRRIGATION AVG USE (GALLONS PER DAY): 720,000 MAX USE (GALLONS PER DAY): 1,440,000</p>	<p><u>Notes:</u></p> <ol style="list-style-type: none"> 1. The acronym WUWN means the Wisconsin Unique Well Number. 2. The acronym PWSID means Public Water Supply Identification Number 3. The latitude and longitude coordinates for the proposed well(s) are from the applicant.
<p>PROPOSED WELL DNR HIGH CAP WELL#: 71786 WELL STATUS: APPROVED NEW WELL SITE WELL NUMBER: 001 WELL NAME: SOUTH WELL WUWN: NONE PWSID NUMBER: NONE LATITUDE: 44 Deg .308 Minute LONGITUDE: -89 Deg 36.475 Minute LOCATION TOLERANCE (FT): 660 LOCATION: SW 1/4 NE 1/4 S25 T18N R7E CIVIL TOWN: RICHFIELD COUNTY: ADAMS DATE COMPLETED: NONE WELL DEPTH: NONE PUMP CAPACITY (GPM): 500 USE: DAIRY FARMING MAX USE:(GALLONS PER 30 DAY PERIOD) 10,800,000¹ MAX USE:(GALLONS PER 365 DAY PERIOD) 65,600,000²</p>	<p><u>Footnotes:</u></p> <ol style="list-style-type: none"> ¹. This number is based on a combined maximum 30-day pumping amount of 21,600,000 gallons for wells 71786 and 71787. Refer to condition #6 above. Actual pumpage for each well may exceed the listed amount, provided total water usage for both wells remains below the 30-day maximum.
<p>PROPOSED WELL DNR HIGH CAP WELL#: 71787 WELL STATUS: APPROVED NEW WELL SITE WELL NUMBER: 002 WELL NAME: NORTH WELL WUWN: NONE PWSID NUMBER: NONE LATITUDE: 44 Deg .39 Minute LONGITUDE: -89 Deg 36.466 Minute LOCATION TOLERANCE (FT): 660 LOCATION: SW 1/4 NE 1/4 S25 T18N R7E CIVIL TOWN: RICHFIELD COUNTY: ADAMS DATE COMPLETED: NONE WELL DEPTH: NONE PUMP CAPACITY (GPM): 500 USE: DAIRY FARMING MAX USE:(GALLONS PER 30 DAY PERIOD) 10,800,000¹ MAX USE:(GALLONS PER 365 DAY PERIOD) 65,600,000²</p>	<ol style="list-style-type: none"> ² This number is based on a combined maximum 365-day pumping amount of 131,200,000 gallons for wells 71786 and 71787. Refer to condition #6 above. Actual pumpage for each well may exceed the listed amount, provided total water usage for both wells remains below the 365 day-maximum.

**Guidance on Acceptable Means of Measuring or Estimating
Pumpage from High Capacity Wells
Private Water Supply Section, Bureau of Drinking Water and Groundwater,
Wisconsin Department of Natural Resources
April 18, 2007**

Introduction

Wisconsin 2003 Act 310 (also known as the Groundwater Protection Act or High Capacity Well Law) requires that the department collect pumping data from high capacity well owners. Therefore, you as the owner or operator of the well must collect or estimate pumpage data from your high capacity well system.

A high capacity well is any well on a high capacity property. A high capacity property is one property that has a total of 70 gallons per minute (gpm) or more total pumping capacity of all wells. Therefore, a farm that has a large irrigation well and a small residential well on the same property would have two high capacity wells, both the irrigation well and residential well. The flow rate for naturally flowing wells is also included in the total capacity for the property.

The following has occurred or is expected to occur during the foreseeable future:

- Fall 2006 through Spring 2007 – The department sent mailings to all high capacity well owners asking that the owner verify information about ownership of their high capacity wells. From that information, the department is updating ownership records for high capacity wells.
- Spring 2007 – The department will mail information (including this document) to high capacity well owners about acceptable methods to measure or estimate the amount of water that they pump from high capacity wells.
- July 2007 – Chapter NR 820, Wisconsin Administrative Code is expected to become effective. This rule will include requirements for reporting the amount of pumpage from high capacity wells.
- Fall 2007 and fall of subsequent years – The department will send reporting forms to high capacity well owners to report their well pumpage.
- March 1, 2008 and March 1 of subsequent years, submittal deadline for well owners to report pumpage to the department for the prior year.

Detailed Requirements for Pumpage Estimation or Measurement

Use Table 1 or 2 to determine the available approved methods, Table 1 is for wells with a capacity of less than 70 gallons per minute (gpm) and Table 2 for wells with a greater capacity.

Community water supplies that are regulated by the Public Service Commission (PSC) may have more stringent requirements than outlined in this guidance. Where there are inconsistencies between this guidance and PSC requirements, you should comply with the PSC requirements instead of this guidance.

A small number of high capacity well approvals that have been issued specify more stringent monitoring and reporting requirements (some industrial wells, water systems serving public utilities, certain public water supply systems, etc.). The owners of those systems are already reporting pumpage and shall continue to follow previously established reporting requirements.

If a flow meter or hour meter needs to be installed on your high capacity well, you should install it by one of the following dates:

- Industrial wells with a pumping capacity of 500 gpm or more – hour meters by July 1, 2007 or flow meters by October 1, 2007.
- Irrigation wells with a pumping capacity of 500 gpm or more – hour meters by August 1, 2007 or flow meters by April 30, 2008.
- Other wells with a pumping or flowing capacity of 70 or more gallons per minute – hour meters by August 1, 2007 or flow meters by October 15, 2008.
- Wells with a pumping capacity less than 70 gallons per minute that do not use an estimation method – October 1, 2007.

When you submit pumpage data for the 2007 calendar year, you may estimate pumpage for months prior to the dates that are listed above. If there is a better method to measure or estimate pumpage for your particular installation, you may contact the department and ask for approval for that estimation method. Contact information is at the bottom of Tables 1 and 2.

Table 1

Wells with a Pumping or Flowing Capacity of Less Than 70 Gallons per Minute

Estimate Pumpage for Residential Use (Homes, Condominium Homes, Apartments, Trailer Homes, Etc.)	This method may only be used if the water is used solely for domestic purposes in a residence. Assume 2,000 gallons of water per resident per month, thus multiply the average number of residents served by the well during each month by 2,000 to estimate the number of gallons that were pumped during each month. Wells that serve a condominium clubhouse, swimming pool at a condominium or apartment complex, etc., should have a water meter installed.
Estimate Pumpage for Dairy and Animal Husbandry Where a Flow Meter is Not Installed.	For farms with cattle or poultry, well(s) used to supply water for the animals and related uses (including milk processing, equipment cleaning, etc.) can be estimated at the following gallons per animal per month: Dairy cattle, 1,800. Beef cattle, 750. Horses, 350. Hogs, Ostriches and Emus, 100. Sheep, Goats, Llamas, Alpacas, 60. Turkeys, 6. Chickens, 3. If more than one well is in use, divide the total estimated water usage by the number of wells and report that result for each well. If the well(s) serves both a residence and is also used for animals, use the values listed above for animals and also assume an additional 2,000 gallons per person per month for residential uses.
Estimate or Measure Pumpage for Wells Used for Agriculture, Other Than for Animals and Not for Irrigation	If the well is for limited use with a pumping capacity of 20 gpm or less, such as minor cleaning purposes along with restrooms in a barn or shop, use an estimate of 20 gallons per person per day. If the well is used for irrigation, food processing or washing agricultural products, a meter or hour meter is necessary.
Estimate Pumpage for Campgrounds	Estimate 10 gallons per day per person if no showers or laundry machines are provided, otherwise assume 35 gallons per day per person at the campground that day.
Estimate Pumpage for Hand and Wind Powered Pumps	For hand operated pumps, assume 1,000 gallons per month during months when the well is used. For wind powered pumps, contact the department, see note 3 below.
Estimate Pumpage for Flowing Wells (For purposes of this guidance, "pumpage" includes water that flows from a flowing well, including wells without a pump installed.)	<ul style="list-style-type: none"> • Pumpage can be measured with a totalizing flow meter. • If the flow rate is reasonably constant, a flow rate may be estimated based on the time to fill a five gallon bucket or small barrel of known volume. If the flow rate is not reasonably constant, take several measurements at different times and different months to, then calculate an average. • A licensed driller or pump installer may install equipment to estimate the flow rate using a method described in Appendix 16 of <i>Groundwater and Wells</i>, 1986, F.G. Driscoll, Johnson Division. A person who holds an applicable credential under Chapters 443 or 470, Wis. Stats. may also estimate the actual flowing rate. • Or, contact the department with other proposed methods, see note 3 below.
Measurement Options for All Situations Including Situations Not Listed Above.	<ul style="list-style-type: none"> • Pumpage can be measured with a totalizing flow meter. Record the meter reading on the first or last day of each month, the difference between monthly readings is the amount of water pumped that month. For wells that are not regulated by Chapter PSC 185, Wis. Adm. Code, meters should be tested and calibrated for accuracy every ten years for accuracy for meters with a pipe size of one inch or less, and every four years for larger meters. Chapter PSC 185, Wis. Adm. Code specifies more frequent testing and calibration for well systems that are regulated by the Public Service Commission. • If a variable speed pump is not used, pumpage can be estimated based on the pump rating in gallons per minute and an hour meter that measures cumulative hours of pump operation. Record the hour meter reading on the first or last day of each month. To estimate the pumpage for each month, calculate the number of hours the pump operated that month, multiply that by the pump capacity in gallons per minute and multiply that by 60 to estimate the gallons pumped during that month. If a variable speed pump is used, only a totalizing flow meter may be used. The hour meter should only measure hours of pump operation.

Notes:

1. For water uses that are not specifically listed above, such as irrigation, food processing, washing of agricultural products, motels, restaurants, golf course clubhouses, offices, taverns, etc., use a meter as described above in the category of "measurement options for all situations."
2. Meters shall be installed, operated, maintained and repaired in accordance with manufacturer's standards, instructions, or recommendations, and shall ensure an error of less than 10 percent. Most meter manufacturers specify a minimum length of unobstructed straight piping, both upstream and downstream of the meter for accurate readings. Owners, pump installers and plumbers should use the criteria in this guidance to select an appropriate metering method and meter.
3. To contact the department for assistance in developing a site specific estimate based on unusual circumstances, call (608) 267-7553 or e-mail at Lawrence.Lynch@Wisconsin.gov.

Table 2

Pumping or Flowing Capacity of 70 or More Gallons per Minute

Constant Rate Pumps – Electric Powered	<p><u>Totalizing Flow Meter.</u> Record the pumpage on the first or last day of each month and calculate the gallons that were pumped between meter readings. See notes 1 and 2, below.</p> <p><u>Pump Fitted with an Hour Meter.</u> This method may be used only if the actual pumping rate is known within a tolerance of plus or minus 10 percent and the pump is equipped with an hour meter. Record the hour meter readings on the first or last day of each month. Calculate the number of hours that the pump operates each month and multiply that by the number of gallons pumped per hour. Constant rate pumps do not pump at a constant rate when the pressure of the water system varies, therefore, when measuring the actual pumpage rate with a device that measures the flow velocity through a pipe (ultrasonic meters, etc.), the person performing the measurement must measure the rate under all anticipated conditions and calculate an average. Examples include a pressure tank and switch with a wide pressure range (e.g. 40 to 60 psig), a center pivot irrigation system that includes additional nozzles that cover corners when those nozzles are only operated during part of the cycle, etc. See note 3 below.</p>
All Pumps Powered by Internal Combustion Engines	<p><u>Totalizing Flow Meter.</u> Totalizing flow meters are the only option because engine rpms may vary over time, thus an hour meter will not provide sufficient accuracy. Record the pumpage on the first or last day of each month and calculate the gallons that were pumped between meter readings. See notes 1 and 2, below.</p>
Variable Speed (Variable Frequency Drive) Pumps	<p><u>Totalizing Flow Meter.</u> A totalizing flow meter is the only option. Record the pumpage on the first or last day of each month and calculate the gallons that were pumped between meter readings. See notes 1 and 2, below.</p>
Flowing Wells	<p><u>Totalizing Flow Meter.</u> Record the pumpage on the first or last day of each month and calculate the gallons that were pumped between meter readings. See notes 1 and 2, below.</p>
<p>(“Pumpage” includes water that flows from a flowing well, including wells without a pump installed.)</p>	<p><u>Estimate.</u> Equipment to estimate the flow rate using a method described in Appendix 16 of <i>Groundwater and Wells</i>, 1986, F.G. Driscoll, Johnson Division can be installed. The equipment should be specified by a licensed well driller, pump installer or someone who holds an applicable credential under Chapters 443 or 470, Wis. Stats. Flow rate should be estimated on a monthly basis to account for seasonal variation.</p>
<p>Notes:</p> <ol style="list-style-type: none"> Flow meters shall be installed, operated, maintained and repaired in accordance with manufacturer’s standards, instructions, or recommendations, and shall ensure an error of not greater than plus or minus 10 percent. This includes following the manufacturer’s specification for upstream and downstream unobstructed straight piping lengths. Owners, pump installers and plumbers should use the criteria in this guidance to select an appropriate metering method and meter. Flow meters that are installed outside should be protected from frost and a means to drain the meter. At a minimum, flow meters should be tested for accuracy every four years for meters with a pipe larger than one inch, every ten years for meters that are one inch or less, unless Chapter PSC 185, Wis. Adm. Code specifies more frequent testing. Chapter PSC 185 is only applicable to water systems that are regulated by the Public Service Commission. When an hour meter is used to calculate pumpage, determine actual pumping rate every four years to account for pump impeller wear. The hour meter should be dedicated to pump operation and should not record times when other equipment is operated, such as center pivot rotation without pumping. A licensed pump installer or licensed well driller should determine the actual pumping rate with an approved method of measurement to an accuracy of plus or minus 10 percent. A person who holds an applicable credential under Chapters 443 or 470, Wis. Stats. may also determine the actual pumping rate. Approved methods of measurement include the following: <ul style="list-style-type: none"> Ultrasonic flow meter, temporarily installed. Orifice plate meter or venturi meter, permanently installed. Other flow or velocity measurement methods may be approved on an individual basis, submit the specifications and proposed procedures for the alternative method to seek approval before use. To contact the department for assistance, call (608) 267-7553 or e-mail at Lawrence.Lynch@Wisconsin.gov. 	

Frequently Asked Questions and Answers

- I did not need to collect pumpage data in the past. Why do I need to do this now?

Prior to 2007, reporting was only required for a small number of high capacity well systems. The requirement that all high capacity well owners report pumpage is new for 2007.

- I did not know that I would have to take monthly readings until I received this in the mail. What do I do about the first several months of this year?

Make the best estimate that you can based on your the well usage after you start measuring your pumpage. The department recognizes that the reports submitted by each well owner during the first year of reporting may include estimation errors.

- I lease out my property with the irrigation well to someone else. I have no way of knowing how much water was pumped. Am I exempt from reporting requirements?

Owners that lease their property to others are not exempt. The owner is responsible for reporting. Ideally, the owner and the lessee can work cooperatively to 1) get the necessary metering devices installed; 2) measure or estimate pumpage; and 3) submit the data to the department. As a more formal alternative, an owner could put a requirement in the lease agreement that the holder of the lease must collect the pumpage data and report that to the high capacity well owner or to the department. If the department is aware that operators will perform the reporting, the department can mail the reporting forms to the operator instead of the owner, upon request by the owner. But, if the operator does not carry out the reporting, the owner is ultimately responsible.

- I bought the property with the high capacity well mid-year. The previous owner did not give me any meter readings for the first part of the year. What do I do?

Make the best estimate that you can based on the well usage after you bought the property and any estimates you can make about the usage by the prior owner.

- If I report more water usage than I actually used, does that mean that I will have more water allocated to me next year?

The department does not allocate water based on prior use. You may use as much water as your high capacity well approval allows. You should report the amount that you actually used.

- I have not used that old well for at least eight years. Do I need to fill out the pumpage form?

According to the well code (Chapter NR 812, Wisconsin Administrative Code), a well that has been taken out of service must be sealed (abandoned in accordance with the well code) within three years. In the near future, there will be a new requirement that this must be performed by a licensed well driller or pump installer. If you have a reasonable expectation that you will use the well within two additional years, you can request approval for up to two years for temporary abandonment. Thus, if you have not used the well for more than three years (five years if temporary abandonment was approved), you should have had the well sealed (abandoned) several years ago. Once the well is abandoned according to code requirements and department records are updated, you do not need to fill out pumpage forms, submittal of the pumpage forms is required until then. Thus, at this time you should report zero pumpage and make arrangements to seal (abandon) the well.

- What happens if I refuse to report pumpage?

Section 281.98(1), Wisconsin Statutes, provides financial penalties for each violation.

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Instructions**Well Filling and Sealing**

Wisconsin Administrative Code (NR811, NR 812, and NR 141 requires well owners to permanently fill and seal any unused wells/drillholes/boreholes on their property. **As of June 1, 2008 water supply wells can only be filled and sealed by licensed well drillers and pump installers.**

1. Remove any pump, pump piping, debris or other obstacles that could interfere with the sealing operation.
2. Except when bentonite chips are used, the sealing material must be placed with the use of a conductor (tremie) pipe to fill the entire well column to the top with required sealing material. Refer to NR 812 and NR 141 for more details on filling and sealing requirements.

General Instructions: Fill out Well/Drillhole/Borehole Filling & Sealing Form 3300-005 as completely as possible for each well or borehole filled and sealed. Information should be provided for every box on the form where available. Sign each form. Please note that these forms are subject to change. (Personally identifiable information on these forms is not intended to be used for any other purpose.)

Verification Only of Fill and Seal: If you are only verifying that filling and sealing has previously occurred on a well and are NOT performing any filling and sealing work on the well, check the box near the top of the form. Complete Parts 1 and 2 of the form completely and any information you can provide in Parts 3, 4 and 5. You must provide comments in Part 6 as to the method used to verify both the filling and sealing of the well. Complete Part 7, excluding the date of Filling and Sealing. It will be implied that you did not do the filling and sealing work as stated in Part 7.

Route to: Check the appropriate routing box on the top of the form to assure proper routing to the DNR program requiring this well be filled and sealed. Mail the form and any attachments to the Department of Natural Resources, PO Box 7921, Madison, WI 53707-7921.

If you do any work to fill or seal the well, you must complete this form as intended and do not check the Verification Only of Fill and Seal box.

(1) WELL LOCATION INFORMATION

WI Unique Well #: Fill in the 2 alphabetic and 3 numeric Wisconsin Unique Well Number (WUWN) of the well being filled and sealed. Check the well, sample tap in the house or the fuse box for a WUWN if one has been assigned to the well.

Hicap #: If this was a high capacity well, enter the number assigned to the well by the Department.

Well Location: The well location can be determined by latitude and longitude coordinates in degrees and decimal minutes (to the thousandths, for example, latitude 43°04.347'N longitude 89°24.803'W) using a Global Positioning System (GPS) unit. If using GPS, check the method code for the GPS unit. The location can also be determined using Public Land Survey (Gov't Lot or ¼ /¼, ¼, Section, Township and Range).

Method Code: This field lists data collection method codes for latitude and longitude coordinates. This field must be entered if a latitude/longitude coordinate is entered.

GPS006 - Mapping or recreational grade GPS receiver with no differential correction and selective availability off

GPS007 - Mapping or recreational grade GPS receiver with no differential correction and selective availability on

GPS008 - GPS receiver grade and or differential correction procedures unknown

(2) FACILITY / OWNER INFORMATION

If the well is located at a commercial or government facility, fill in the name of landfill, wastewater treatment facility, surface impoundment, spill or project.

Facility ID: Fill in the nine digits Facility ID (FID or PWS) assigned to the site by the Department.

License/Permit/Monitoring #: Fill in number assigned to facility by the Department. If unknown, leave blank.

Present Well Owner: Fill in the name, address, city, state and ZIP code of the present owner.

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: Fill in the original date of construction for the well or boring in mm/dd/yyyy format.

Depth to Water: Enter depth to water from ground surface.

- (4) **PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL:** Check only one box where Yes, No or Not Applicable is indicated. Check all boxes which apply otherwise.
- (5) **MATERIAL USED TO FILL THE WELL/DRILLHOLE:** Enter the description of the filling material, the depth From and To, circle one measurement unit (Yards, Sacks or Volume), and enter the mix ratio or mud weight (in pounds per gallon).
- (6) **COMMENTS:** Describe any of the above boxes in more detail or add information as required to describe the filling and sealing procedures.
- (7) **NAME OF PERSON OR FIRM DOING SEALING WORK:** Enter the name (first and last) or firm name, address, and phone number of the person who supervised the work.

Date of Filling & Sealing: List Month/Day/Year (mm/dd/yyyy) the well was filled & sealed.